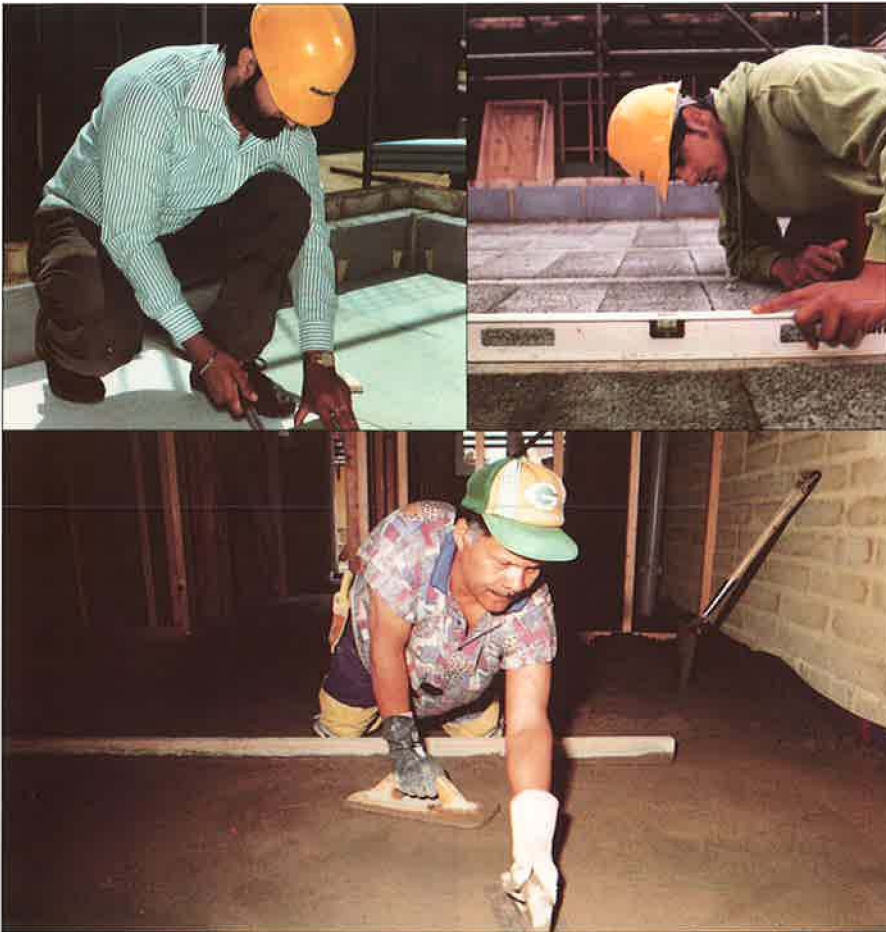


ENERGY EFFICIENCY IN NEW HOUSING

Site practice for tradesmen

Ground floors:

Insulating above a concrete floor



This method can be used with all solid ground floor constructions. With suspended (beam and block) and raft constructions, it is the most widely used method of insulating the floor. The insulation can be finished either with a pre-fabricated board, for example, chipboard, or with a screed. With board finishes, the insulation and chipboard can be loose laid separately, or a composite system used which has insulation pre-bonded to the board finish.

No matter whether the finish is a screed or chipboard, the insulation must be laid on a flat surface (up to 5 mm under a 3 m straight edge is acceptable) to prevent excessive deflection of the finished floor.

To avoid cold spots, lay insulation across the whole floor area with no gaps. Where services pass through the floor, or run within the insulation, cut the insulation away neatly to accommodate the services.

Timber boarded floors and many types of floor finish are easily damaged by construction moisture. To prevent this, a moisture-resistant membrane (at least 500 gauge polyethylene) should be used above a 'wet' slab in addition to a conventionally positioned damp proof membrane (dpm).

REMEMBER

Workmanship is a key factor in preventing heat loss and air leakage.



Energy Efficiency Office
DEPARTMENT OF THE ENVIRONMENT

“Workmanship is a key factor in preventing heat loss and air leakage”

POINTS TO FOLLOW

- Ensure insulation is the correct type
- Store insulation in a dry place prior to use
- Fix insulation when building is weathertight

Screed finish

- Use a separating layer (500 gauge polyethylene) well lapped and turned up at the floor edges, to prevent wet screed penetrating the joints between the insulation boards
- Ensure screed thickness is a minimum of 65 mm, properly compacted and reinforced

Board finish

- Use timber loading pads under staircases, at door openings, kitchen units, and other areas of increased floor loading
- Seal around holes for services in the floor decking with expanding polyurethane foam
- Protect installed floors from subsequent trades



Ensure floor surface is flat. Clean off mortar droppings and other debris



Lay insulation across the whole floor area without leaving any gaps

Cut insulation neatly to accommodate services



Use boards across the insulation when barrowing and tipping the wet mix

Joints between floor boards should be continuously glued



Use temporary wedges at the edges of the floor deck to maintain an expansion gap of not less than 10 mm



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